REMARKS

In the Office Action dated February 8, 2008, claims 20-22 were objected to; claims 1-4, 12-15, 20, and 22 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,353,828 (Ganesh '828) in view of U.S. Patent No. 6,714,943 (Ganesh '943); claims 9 and 10 were rejected under 35 U.S.C. § 103(a) as unpatentable over Ganesh '828 in view of Ganesh '943, and U.S. Patent No. 5,940,828 (Anaya); claim 11 was rejected under 35 U.S.C. § 103(a) as unpatentable over Ganesh '828 in view of Ganesh '943, Anaya, and U.S. Patent No. 5,442,785 (Roffe); claim 11 was rejected under 35 U.S.C. § 103(a) as unpatentable over Ganesh '828 in view of Ganesh '943, Anaya, and U.S. Patent Application Publication No. 2002/0133494 (Goedken); claim 18 was rejected under 35 U.S.C. § 103(a) as unpatentable over Ganesh '828 in view of Ganesh '943, and U.S. Patent No. 6,581,205 (Cochrane); claim 21 was rejected under 35 U.S.C. § 103(a) as unpatentable over Ganesh '828 in view of Ganesh '943, and U.S. Patent No. 6,574,717 (Ngai); claim 23 was rejected under 35 U.S.C. § 103(a) as unpatentable over Ganesh '828 in view of Ganesh '943, and U.S. Patent No. 6,678,701 (Garth); claims 24 and 25 were rejected under 35 U.S.C. § 103(a) as unpatentable over Ganesh '828 in view of Ganesh '943, Garth, and U.S. Patent No. 6,567,816 (Desai); and claim 26 was rejected under 35 U.S.C. § 103(a) as unpatentable over Ganesh '828 in view of Ganesh '943, Garth, Desai, and U.S. Patent No. 6,151,601 (Papierniak).

CLAIM OBJECTIONS

Claims 20-22 were objected to due to the presence of the term "adapted to." The Office Action stated that the phrase "adapted to" "suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure [sic] does not limit the scope of a claim or claim limitation." 2/8/2008 Office Action at 4.

Contrary to the assertion in the Office Action, courts have approved the use of "adapted to" as providing structural limitations. *See In re Venezia*, 189 U.S.P.Q. 149, 151-152 (C.C.P.A. 1976) ("Rather than being a mere direction of activities to take place in the future, this language ["adapted to"] imparts a structural limitation ...."). The court in *In re Venezia* stated that there is "nothing wrong in defining the structures of the components ... in terms of the interrelationship of the components." *Id.* at 152.

Therefore, use of "adapted to" in the claims is appropriate.

Withdrawal of the claim objection is respectfully requested.

REJECTIONS UNDER 35 U.S.C. § 103

Claim 1 was rejected as being obvious over Ganesh '828 and Ganesh '943. It is respectfully submitted that a *prima facie* case of obviousness has not been established with respect to claim 1.

To make a determination under 35 U.S.C. § 103, several basic factual inquiries must be performed, including determining the scope and content of the prior art, and ascertaining the differences between the prior art and the claims at issue. *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 U.S.P.Q. 459 (1965). Moreover, as the U.S. Supreme Court held, it is important to identify a reason that would have prompted a person of ordinary skill in the art to combine reference teachings in the manner that the claimed invention does. *KSR International Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1741, 82 U.S.P.Q.2d 1385 (2007).

Here, a comparison of the claimed subject matter and the teachings of the cited references will reveal that the claimed subject matter differs significantly from the teachings of the cited references.

The Office Action cited Ganesh '828 as disclosing the "receiving" clause of claim 1, and the following phrase of claim 1: "schedule transactions to avoid execution of modification operations of more than one of the at least two base relations at one time in the database system." 2/8/2008 Office Action at 5. However, the Office Action conceded that Ganesh '828 fails to disclose the "performing partitioning" clause and the "grouping" clause of claim 1. *Id.* Instead, the Office Action relied upon Lou and Ganesh '943 as disclosing the claimed features missing from Ganesh '828. *Id.* at 5-6.

Ganesh '828 relates to maintaining a materialized view in response to changes to a base table by performing an incremental maintenance in which the entire materialized view is not regenerated every time a base table is changed. Ganesh '828, 3:15-18. Ganesh '828 also teaches that one transaction can place a lock on base tables of a materialized view such that a second transaction that requests an exclusive lock on the base tables would not be able to; rather, this second transaction would be suspended until the exclusive lock for the first transaction is released. Ganesh '828, 4:15-45.

The Office Action properly conceded that Ganesh '828 provides no teaching of (1) partitioning received modification operations (that modify at least first and second base relations) by submitting at least some of the modification operations operating on the first base

relation to a first session, and submitting at least another of the modification operations that operate on the second base relation to a second session; and (2) grouping the at least some of the modification operations in the first session operating in the first base relation into a first transactions, wherein the at least another modification operation in the second session is part of a second transaction.

Contrary to the assertion made on page 6 of the Office Action, Ganesh '943 provides absolutely no hint of the partitioning recited in claim 1. Ganesh '943 teaches dependency tracking in a database system in which dependencies between transactions are tracked. Ganesh '943, 2:2-32. The Office Action cited specifically to the following passages of Ganesh '943: column 4, lines 60-67, column 5, lines 1-20. The cited columns 4 and 5 passages refer to a series of transactions.

The "partitioning" clause of claim 1 is as follows:

performing partitioning of the received modification operations by submitting at least some of the modification operations operating on the **first base relation** to a first session, and submitting at least another of the modification operations that operate on the **second base relation** to a second session;

The series of transactions depicted in columns 4 and 5 all relate to the same relation: Emp_Table. There is absolutely no concept of partitioning received modification operations according to whether such operations operate on a first base relation or a second base relation. Moreover, there is absolutely no hint given in the cited passages of partitioning of the different modification operations operating on different base relations into first and second sessions.

Moreover, since Ganesh '943 does not disclose the concept of partitioning into first and second sessions, Ganesh '943 also does not disclose or hint at the following clause of claim 1: "grouping the at least some of the modification operations in the **first session** operating on the first base relation into a first transaction."

Thus, even if Ganesh '828 and Ganesh '943 could be hypothetically combined, the hypothetical combination of the references would not have led to the claimed subject matter.

Moreover, there simply did not exist any reason for a person of ordinary skill in the art to modify the teachings of Ganesh '828 and Ganesh '943 to achieve the claimed subject matter, which includes the "performing partitioning" and "grouping" clauses. The concept of partitioning received modification operations operating on different base relations into different sessions, and grouping at least some of the modification operations in one of the sessions, clearly

does not exist anywhere in Ganesh '828 and Ganesh '943. Therefore, the only basis for the assertion of obviousness made the Office Action is based on impermissible hindsight, since a person of ordinary skill in the art looking at the objective teachings of Ganesh '828 and Ganesh '943 would not have been led to the claimed invention.

In view of the foregoing, it is respectfully submitted that the obviousness rejection of claim 1 is defective.

Independent claim 12 is similarly allowable over Ganesh '828 and Ganesh '943.

The obviousness rejection of independent claim 22 over Ganesh '828 and Ganesh '943 is also defective. The Office Action conceded that Ganesh '828 does not disclose the re-ordering clause of claim 22, and the grouping clause of claim 22. 2/8/2008 Office Action at 11. Instead, the Office Action relied upon Ganesh '943. *Id.* at 11-12.

The Office Action referred to Ganesh '943's teachings that certain transactions having a dependent SCN of "0" can be ordered before, after, or parallel to any other transaction, and that other transactions having a dependent SCN value of 5 must be scheduled to begin after all other transactions SCN values of 5 or less have completed and committed. The Office Action further referred to column 5, lines 1-20, of Ganesh '943, which illustrates SQL statements in transactions.

However, there is no teaching or hint provided in Ganesh '943 of the following subject matter of claim 22. Claim 22 recites that certain of the modification operations on the first base relation include modification operations of a set of one or more tuples of the first base relation, and that the controller is to group the modification operations on the set of one or more tuples of the first base relation into a transaction, and that the transaction is submitted to a database system separate from the first system for execution.

The statements depicted in column 5, lines 1-20, of Ganesh '943 are predefined statements of particular transactions. However, there is no teaching that the modification operations that operate on a set of one or more tuples of a first base relation are grouped by a controller, as recited in claim 22, in combination with submitting such transaction to a database system separate from the first system for execution.
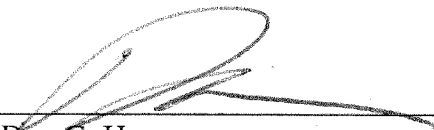
Therefore, even if Ganesh '828 and Ganesh '943 can be hypothetically combined, the hypothetical combination of the references does not disclose or hint at all elements of claim 22. Therefore, claim 22 is clearly non-obvious over Ganesh '828 and Ganesh '943.

Dependent claims are allowable for at least the same reasons as corresponding independent claims. Moreover, in view of the defective obviousness rejections of base claims over Ganesh '828 and Ganesh '943, it is respectfully submitted that obviousness rejections of dependent claims over Ganesh '828 and Ganesh '943 in view of other references are also defective.

In view of the foregoing, allowance of all claims is respectfully requested. The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 50-4370 (11338).

Respectfully submitted,

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